Application No.: 10/590,704 Amendment under 37 CFR §1.111
Art Unit: 2123 Attorney Docket No.: 062916

AMENDMENTS TO THE ABSTRACT

Please amend the abstract on page 215 as follows:

A. [1] A trajectory of motion of the mechanical element is designed by using a three-

dimensional curve (referred to as a three-dimensional clothoid curve) in which each of a pitch

angle and a yaw angle in a tangential direction is given by a quadratic expression of a curve

length or a curve length variable.

B. A trajectory of a machine tool or a contour shape of a workpiece is expressed by using

a three-dimensional curve (referred to as a three-dimensional clothoid curve) in which each of a

pitch angle and a yaw angle in a tangential direction is given by a quadratic expression of a curve

length or a curve length variable to control motion of the machine tool based on the three-

dimensional curve A trajectory of motion of the mechanical element is designed by using a

three-dimensional curve, referred to as a three-dimensional clothoid curve, in which each of a

pitch angle and a yaw angle in a tangential direction is given by a quadratic expression of a curve

length or a curve length variable. A trajectory of a machine tool or a contour shape of a

workpiece is expressed by using a three-dimensional curve, referred to as a three-dimensional

clothoid curve, in which each of a pitch angle and a yaw angle in a tangential direction is given

by a quadratic expression of a curve length or a curve length variable to control motion of the

machine tool based on the three-dimensional curve.

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